

REMARKS

The Office Action of May 26, 2009 was received and carefully reviewed. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1-4, 10-31, 33-38 and 40-56 were pending prior to the instant amendment with claims 24-31, 33-38, 40-44, 48-50 and 54-56 being withdrawn from consideration. By this amendment, claims 1-3 are amended. Consequently, claims 1-4, 10-23, 45-47 and 51-53 are currently pending for consideration in the instant application, of which claims 1-3 are independent.

In the Office Action, claims 1, 10, 13, 16, 19, 22, 45 and 51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 01/27969, which is equivalent to U.S. Patent No. 6,827,870 to Gianchandani et al. (Gianchandani) in view of JP 2003-059909 to Satoshi (Satoshi) and claims 2, 3, 11, 12, 14, 15, 17, 18, 20, 21, 23, 46, 47, 52 and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gianchandani and Satoshi in view of U.S. Patent No. 6,777,880 to Morfill et al. (Morfill).

Gianchandani in view of Satoshi and/or Morfill, however, fails to make obvious the claimed invention. Each of the claims recite a specific combination of features that distinguishes the invention from the prior art in different ways. For example, independent claims 1, as amended, recites a combination that includes, among other things:

wherein the plasma generation unit is moved in an X direction and a Y direction.

(See, for example, FIG. 1 and page 3, lines 10-16 of specification). And independent claims 2 and 3, as amended, each recite yet another combination that includes, *inter alia*,

wherein the first electrode and the plurality of second electrodes are arranged perpendicular to a plane in which a subject substrate is disposed, and wherein the plasma generation unit is moved in an X direction and a Y direction.

At the very least, Gianchandani in view of Satoshi and/or Morfill fails to teach or disclose any of these exemplary features recited in independent claims 1 to 3.

The Examiner has failed to establish a *prima facie* case of obviousness for at least four reasons. First, the Examiner has not demonstrated how Gianchandani, Satoshi and Morfill, whether taken alone or in combination, disclose or suggest each and every feature recited in the claims. *See* M.P.E.P. § 2143 (7th ed. 1998). Second, the Examiner has not shown the existence of any reasonable probability of success in modifying Gianchandani, the base reference, based on the teachings of Satoshi and Morfill, the secondary references, in a manner that could somehow result in the claimed invention. *See id.* Third, the Examiner has not identified any suggestion or motivation, either in the teachings of the applied references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the apparatus of Gianchandani in a manner that could somehow result in the claimed invention. *See id.* Finally, the Examiner has not explained how his obviousness rationale could be found in the prior art — rather than being a hindsight reconstruction of Applicants' own disclosure. *See id.*

Each of the Examiner's factual conclusions must be supported by "substantial evidence" in the documentary record, as required by the Federal Circuit. *See In re Lee*, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002). The Examiner has the burden of documenting all findings of fact necessary to support a conclusion of anticipation or obviousness "less the 'haze of so-called expertise' acquire insulation from accountability." *Id.* To satisfy this burden, the Examiner must specifically identify where support is found within the prior art to

meet the requirements of 35 U.S.C. §§ 102(b) and 103. In this case, however, the Examiner has failed to satisfy his burden of demonstrating how Gianchandani, taken alone or in combination with Satoshi and/or Morfill, can either anticipate or render obvious each and every one of the limitations present in independent claims 1 to 3, as required by the M.P.E.P. and Federal Circuit jurisprudence.

With respect to these rejections, Applicant has amended independent claims 1 to 3 to recite, *inter alia*, the feature of “wherein the plasma generation unit is moved in an X direction and a Y direction,” which is supported, for example, by FIG. 1 and page 3, lines 10-16 of the present specification. On the other hand, the above-cited prior art references do not disclose this added feature. Moreover, by moving the plasma generation in the X-Y directions and applying a voltage to a selected electrode among the plurality of second electrodes, plasma generation is generated in a limited minimum region and generation of a particle is suppressed to a minimum, which is one of the objects of the present invention (see, for example, page 2, lines 8-12 of the specification).

The Examiner asserts that Gianchandani teaches “ a plasma apparatus comprising a substrate 17 (a first electrode) and a plurality of electrode elements 51, 52 opposed to the first electrode 17; a gas supply unit 13 for blowing (introducing) a process gas into a space between the first electrode 17 and the plurality of second electrodes 51, 52 such that a plurality of micro plasma with independent control can be generated {the plasma is generated between the electrode segments and the substrate 17 due to dissociation of gas blown in these openings and by the voltage applied from a power supply}” and “that ingress of gas in the openings 24 (space between first and second electrodes 26, 17) can be obtained through laterally extending micro-channels (not shown) in the dielectric layer 22 [that is gas is blown in a space between the first electrode and the plurality of second electrodes]; and a power

supply unit 31 for applying a voltage independently (selectively) to at least one electrode among the plurality of second electrodes 51 and 52, wherein the plurality of second electrodes 51, 52 of the plasma generation unit are arranged linearly in one line (for example, Fig. 1-3 and col. 2, lines 40-65 and col. 5, line 25 to col. 7, line 35).”

The Examiner attempts to remedy the deficiencies of Gianchandani by turning to Satoshi. The Examiner asserts that Satoshi discusses an electrical unit that is adapted to selectively apply a voltage to only at least one selected electrode among the plurality of second electrodes and wherein the first and plurality of second electrodes are arranged perpendicular to a substrate. However, Satoshi fails to disclose or suggest the features of the first electrode and the plurality of second electrodes being arranged perpendicular to a plane in which a subject substrate is disposed, and wherein the plasma generation unit is moved in an X direction and a Y direction, as similarly recited in claims 1 to 3.

The Examiner attempts further to remedy the deficiencies of Gianchandani and Satoshi by turning to Morfill. The Examiner asserts that Morfill discusses selecting a size of second electrodes. However, Morfill does not disclose or suggest the features of the first electrode and the plurality of second electrodes being arranged perpendicular to a plane in which a subject substrate is disposed, and wherein the plasma generation unit is moved in an X direction and a Y direction, as similarly recited in claims 1 to 3. Therefore, Applicant contends that it cannot be said that Gianchandani, taken in combination with Satoshi and/or Morfill, makes obvious the present invention as claimed.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In*

re Wilson, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Gianchandani, Satoshi nor Morfill, taken alone or in any proper combination, discloses or suggests the subject matter as recited in claims 1 to 3. Hence, withdrawal of the rejection is respectfully requested.

In view of the foregoing remarks, this claimed invention, as amended, is not rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned agent at (202) 585-8100.

Respectfully submitted,

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